



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 03.03.02 Physics

Educational Programme "Physics"

Specializations: "Condensed Matter Physics", "Low Temperature Physics", "Nanoelectronics and Photonics", "Quantum Optics and Nanophotonics", "Quantum Technologies", "Space Physics", "The Teaching of Modern Physics", "Theoretical Physics"

Implementing unit: Faculty of Physics, HSE - Moscow

2 nd, 2025/2026 academic year

APPROVED

26.05.2025

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2024/2025 - 2027/2028

Mode of Study: Full Time

Degree: Bachelor's degree

Block Code	Course	Subject type	Department	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
							1	2	3	4	
	Degree Programme			60,00	2 442	964	206	200	290	268	
	Data Culture			4,00	152	90		2	44	44	
1	External Examinations on Digital Skills. Entry-level	C	отдел развития цифровых компетенций			2		2A			
2	External Examinations on Digital Skills. Intermediate Level	C	отдел развития цифровых компетенций			2				2A	
3	Independent Programming Test. Intermediate	C	отдел развития цифровых компетенций			2				2A	Online Course
4	Processing and Data Analysis in Physics	C	Faculty of Physics	4,00	152	84			44	40A	Online Course
	Major			30,00	1 140	610	156	148	158	148	
	Core Professional Block (Major)			30,00	1 140	610	156	148	158	148	
1	Quantum Mechanics	C	Faculty of Physics	3,00	114	84			44	40A	
2	Mathematical Physics	C	Faculty of Physics	3,00	114	80			40	40A	
3	Calculus	C	Faculty of Mathematics	3,00	114	64	32	32A			
4	Optics	C	Faculty of Physics	4,00	152	84			44	40A	
5	Probability Theory	C	Faculty of Physics	3,00	114	64	32	32A			
6	Field Theory	C	Faculty of Physics	3,00	114	64	32	32A			
7	Theory of Complex Functions	C	Faculty of Physics	4,00	152	48	28A	20A			
8	Thermodynamics and Molecular Physics	C	Faculty of Physics	3,00	114	64	32	32A			
9	Chemistry for Physicists	C	Faculty of Physics	4,00	152	58			30A	28A	
	Minor			10,00	380	80	20	20	20	20	
1	Minor	C		10,00	380	80	20	20A	20	20A	

	General Courses			4,00	314	174	28	28	64	54	
	Optional General Courses			3,00	114	30			20	10	
1	Legal Literacy	C	департамент теории права и сравнительного правоведения	3,00	114	30			20	10A	Online Course
	Core General Courses			1,00	200	144	28	28	44	44	
1	Physical Training	C	Department of Physical Training	1,00	200	144	28	28	44	44A	
	Internship			12,00	456	8	2	2	2	2	
	Research Internship			12,00	456	8	2	2	2	2	
1	Laboratory Work in Optics	C		5,00	190	2				2A	
2	Laboratory Work on Thermodynamics and Molecular Physics	C		5,00	190	2		2A			
3	Educational Internship	C		2,00	76	4	2		2A		
	Language and Communication					2			2		
	Optional Courses										
1	English Language	O		6,00	228	96	28	28	40A		Foreign language, Credits only to the cumulative rating
	Examinations					2			2		
1	Independent Russian Exam	C	School of Foreign Languages			2			2A		

Curriculum agreed:

Academic Supervisor	Кунцевич А.Ю.	26.03.2025
Dean	TRUNIN M.R.	26.03.2025
Head of Centre for Educational Model Design	LEPESHKIN I.A.	26.05.2025

* Subject type:

Compulsory course

Elective course

Optional course

C

E

O